



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2019-0120; Product Identifier 2018-NM-167-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Bombardier, Inc., Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for certain Bombardier, Inc., Model DHC-8-400 series airplanes. This proposed AD was prompted by a report of a cracked outboard spoiler actuator mounting bracket. This proposed AD would require repetitive inspections of the outboard spoiler actuator mounting brackets, replacement of any cracked bracket, and eventual replacement of all brackets with a re-designed part that would terminate the repetitive inspections. We are proposing this AD to address the unsafe condition on these products.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email [thd.qseries@aero.bombardier.com](mailto:thd.qseries@aero.bombardier.com); Internet <http://www.bombardier.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0120; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Kristopher Greer, Aerospace Engineer, Aviation Safety Section AIR-7B1, Boston ACO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; telephone 781-238-7799.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2019-0120; Product Identifier 2018-NM-167-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this NPRM.

**Discussion**

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian AD CF-2018-21R1, effective November 1, 2018 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc., Model DHC-8-400 series airplanes. The MCAI states:

During a scheduled aileron inspection, a crack was found in the right-hand outboard spoiler bracket of an in-service aircraft. An investigation concluded that the crack was caused by low load, high cycle fatigue. A cracked bracket could cause inoperability or jam of a single spoiler panel and possible jam of the aileron circuit. This condition, if not corrected, could adversely affect the continued safe operation and landing of the aeroplane.

The original version of this [Canadian] AD required initial and repetitive inspections of the outboard spoiler brackets, and required replacement of any brackets found cracked. It also required replacement of the brackets with a new design, which terminates the inspection requirement.

Revision 1 of this [Canadian] AD is issued to correct an error in the date of Service Bulletin (SB) 84-27-72 Revision A. This [Canadian] AD also clarifies the part numbers of the outboard spoiler actuator brackets and their assemblies.

The bracket replacement includes related investigative actions (inspecting for damage of the fastener holes in the rear spar web) and corrective actions (oversizing holes or other repair). You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0120.

#### **Related Service Information under 1 CFR part 51**

Bombardier has issued Service Bulletin 84-27-72, Revision A, dated November 9, 2017. This service information describes procedures for repetitively inspecting the left and right outboard spoiler actuator mounting brackets for cracks, replacing cracked brackets, and eventually replacing all brackets with re-designed parts, and related investigative and corrective actions.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

#### **FAA's Determination**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop on other products of the same type design.

#### **Proposed Requirements of this NPRM**

This proposed AD would require accomplishing the actions specified in the service information described previously.

#### **Costs of Compliance**

We estimate that this proposed AD affects 53 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

##### **Estimated costs for required actions**

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
20 work-hours X \$85 per hour = \$1,700	\$4,142	\$5,842	\$309,626

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed AD.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States,

or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**Bombardier, Inc.:** Docket No. FAA-2019-0120; Product Identifier 2018-NM-167-AD.

**(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Bombardier, Inc., Model DHC-8-400, -401, and -402 airplanes, certificated in any category, Serial Numbers 4001 through 4547 inclusive, having outboard spoiler actuator brackets with part numbers 85714052-101 or 85714052-102.

**(d) Subject**

Air Transport Association (ATA) of America Code 57, Wings.

**(e) Reason**

This AD was prompted by a report of a cracked outboard spoiler actuator mounting bracket. We are issuing this AD to address cracking of the outboard spoiler actuator mounting brackets, which could cause inoperability or jam of a single spoiler panel and possible jam of the aileron circuit. This condition, if not corrected, could adversely affect the continued safe operation and landing of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.



**(g) Repetitive Inspections**

At the applicable time specified in paragraph (g)(1) or (g)(2) of this AD: Do a general visual inspection for cracks in the left and right outboard spoiler actuator mounting brackets having part number (P/N) 85714052-101 or 85714052-102 (belonging to assemblies having P/N 85714018-001 or P/N 85714018-002, respectively), in accordance with Section 3.B, Part A, of the Accomplishment Instructions of Bombardier Service Bulletin 84-27-72, Revision A, dated November 9, 2017. Repeat the inspection thereafter at intervals not to exceed 8,000 flight hours.

(1) For airplanes having less than 12,000 total flight hours as of the effective date of this AD: Prior to the accumulation of 18,000 total flight hours.

(2) For airplanes having 12,000 total flight hours or more as of the effective date of this AD: Within 6,000 flight hours after the effective date of this AD.

**(h) Part Replacement**

(1) If, during any inspection required by paragraph (g) of this AD, either the left or right outboard spoiler actuator mounting bracket is found cracked: Before further flight, replace both the left and right brackets with new bracket assemblies having P/N 85714018-003 or P/N 85714018-004, including doing all applicable related investigative actions and corrective actions, in accordance with Section 3.B, Part B, of the Accomplishment Instructions of Bombardier Service Bulletin 84-27-72, Revision A, dated November 9, 2017; except, where the service information specifies contacting Bombardier for corrective action, this AD requires accomplishing the action using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada

Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(2) If, during any inspection required by paragraph (g) of this AD, no cracking is found on the left and right outboard spoiler actuator mounting brackets, and the left and right outboard spoiler actuator mounting brackets have not already been replaced per the requirements of paragraph (h)(1) of this AD: Replace both the left and right brackets with new bracket assemblies having P/N 85714018-003 or P/N 85714018-004, including doing all applicable related investigative actions and corrective actions, at the applicable time specified in paragraph (h)(2)(i) or (h)(2)(ii) of this AD, in accordance with Section 3.B, Part B, of the Accomplishment Instructions of Bombardier Service Bulletin 84-27-72, Revision A, dated November 9, 2017; except, where the service information specifies contacting Bombardier for corrective action, this AD requires accomplishing the action using a method approved by the Manager, New York ACO Branch, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO. If approved by the DAO, the approval must include the DAO-authorized signature. Related investigative and corrective actions must be done before further flight.

(i) For airplanes that have accumulated less than 34,000 total flight hours as of the effective date of this AD: Replace the outboard spoiler actuator mounting brackets prior to the airplane accumulating 40,000 total flight hours.

(ii) For airplanes that have accumulated 34,000 total flight hours or more as of the effective date of this AD: Replace the outboard spoiler actuator mounting brackets within 6,000 flight hours after the effective date of this AD.

**(i) Terminating Action for Repetitive Inspections**

Replacement of an outboard spoiler actuator mounting bracket, in accordance with the requirements of paragraph (h) of this AD, is terminating action for the repetitive inspections required by paragraph (g) of this AD for the replaced bracket.

**(j) Credit for Previous Actions**

This paragraph provides credit for the actions required by paragraphs (g) and (h) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 84-27-72, dated January 19, 2017.

**(k) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or

lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) *Contacting the Manufacturer:* For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO. If approved by the DAO, the approval must include the DAO-authorized signature.

**(I) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2018-21R1, effective November 1, 2018, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0120.

(2) For more information about this AD, contact Kristopher Greer, Aerospace Engineer, Aviation Safety Section AIR-7B1, Boston ACO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; telephone 781-238-7799.

(3) For information about AMOCs, contact Aziz Ahmed, Aerospace Engineer, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone: 516-287-7329; fax: 516-794-5531; email: [Aziz.Ahmed@faa.gov](mailto:Aziz.Ahmed@faa.gov).

(4) For service information identified in this AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email [thd.qseries@aero.bombardier.com](mailto:thd.qseries@aero.bombardier.com); Internet <http://www.bombardier.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued in Des Moines, Washington, on March 13, 2019.

Dionne Palermo,  
Acting Director,  
System Oversight Division,  
Aircraft Certification Service.

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